



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,097	01/10/2002	Michael Anthony Pugel	RCA 89349	6022
7590 09/29/2004				
Joseph S Tripoli Thomson Multimedia Licensing Inc PO Box 5312 Princeton, NJ 08543-5312			EXAMINER AU, SCOTT D	
			ART UNIT 2635	PAPER NUMBER

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,097

Applicant(s)

PUGEL ET AL.

Examiner

Scott Au

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This communication is in response to applicant's response to an Amendment B, which is filed 7/19/04, 2004.

An amendment B to the claims 1-8 have been entered and made of record in the Application of Pugel et al. for an "Apparatus and associated method for limiting access of information transferred between an electronic security device and a host device" filed January 10, 2002.

Claims 1-8 are pending.

Response to Arguments

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mondardini (W0# 96/00951) in view of Sakiyama (EP# 0,880,311).

Referring to claim 1, Mondardini discloses an apparatus sensing unauthorized use of an electronic security device (11) (i.e. chip-card), the apparatus comprising a host device (10) (i.e. reader) with a housing (i.e. see Figure 1) having an opening forming a port (13) (i.e. slot) configured to receive the electronic security device (11) (i.e. chip-card), the port forming a limited passage into the housing for passage of the electronic security device (11) (i.e. chip-card); and a port detector (18) (i.e. detector circuit) for sensing radiation emitted from unauthorized modification of the electronic security device (11) (i.e. chip-card), the port detector (18) (i.e. detector circuit) controlling or preventing operation of the apparatus based upon detection of said unauthorized modification (111) (i.e. leads), wherein the unauthorized modification (111) (i.e. leads) includes coupling to the electronic security device (11) (i.e. chip-card) conductors extending through the port (13) (i.e. slot) and wherein the port detector (18) (i.e. detector circuit) has an antenna (17,17') (i.e. laminae, they behave as true antennas) encompassing the opening forming the port(13) (i.e. slot), the antenna (17,17') (i.e. laminae, they behave as true antennas) being responsive to time varying currents passing along the conductors(111) (i.e. leads) (i.e. abstract, page 1 lines 14-25, page 3 line 13 to page 6 line 25; see Figures 1-2).

However, Mondardini did not explicitly disclose the antenna is a loop antenna of a port detector.

In the same field of endeavor of detecting an electromagnetic field coming in a disk slot, Sakiyama discloses coil (21) (i.e. detecting loops) loops around the opening

(11) (i.e. a disk slot of a floppy disk drive) (page 2 lines 25-30 and page 4 lines 46-50; see Figures 1-5) in order to detect the electromagnetic field.

One of ordinary skill in the art understands that coil antenna of Sakiyama is desirable in the detecting port of Mondardini because Mondardini suggests laminae 17-17' are arranged inside of slot 13 of the reader 10 for reading the contact signals, for which they behave as a true antenna (page 4 lines 6-20 and page 5 lines 8-11) and Sakiyama suggests a coil antenna loop around the opening 11 for detecting the electromagnetic field something is inserted in the slot opening 11 (page 2 lines 25-30 and page 4 lines 46-50). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include coil antenna of Sakiyama in the port detecting of Mondardini with the motivation for doing so would allow the coil antenna loop inside around the slot opening as an alternative of having laminae arrange inside of slot for detecting electromagnetic field.

Referring to claim 2, Mondardini in view of Sakiyama disclose the apparatus set forth in claim 1, Mondardini discloses wherein the port detector (18) (i.e. detector circuit) detects electromagnetic radiation occurring at the port (13) (i.e. slot) having a prescribed frequency (i.e. si, induced signal) (page 5 lines 8-22).

Referring to claim 3, Mondardini in view of Sakiyama disclose the apparatus set forth in claim 1, Mondardini discloses wherein the apparatus is operable to apply a time varying signal to the electronic security device (11) (i.e. chip-card), which time varying signal is detected by the port detector (18) (i.e. detector circuit) at the loop antenna

(17,17') (i.e. laminae, they behave as true antennas) as a signature signal and wherein the port detector (18) (i.e. detector circuit) is responsive to variations in capacitance that are identifiable from the signature signal and indicate presence of said conductor (page 4 line 24 to page 6 line 25).

Referring to claim 4, Mondardini in view of Sakiyama disclose the apparatus set forth in claim 1, Mondardini discloses wherein the electronic security device emits a time varying signal detected by the port detector (18) (i.e. detector circuit) as a signature signal at the loop antenna (17,17') (i.e. laminae, they behave as true antennas), and wherein the port detector (18) (i.e. detector circuit) is responsive to variations in a capacitance of the electronic security device (11) (i.e. chip-card) that are identifiable from the signature signal (page 4 line 24 to page 6 line 25).

Referring to claim 5, Mondardini in view of Sakiyama disclose the apparatus set forth in claim 1, Mondardini discloses wherein the electronic security device is a smart card (11) (i.e. chip-card is the same as a smart card accordingly) (page 1 lines 14-25; see Figures 1-2).

Referring to claim 6, Mondardini discloses a method of determining unauthorized use of an electronic security device (11) (i.e. chip-card) wherein the electronic security device is used in an apparatus (10) (i.e. reader) having a housing (i.e. see Figure 1) that is substantially closed but for an opening defining a port (13) (i.e. slot) for receiving the

electronic security device (11) (i.e. chip-card) and the unauthorized use includes coupling conductors (111) (i.e. leads) to the electronic security device (11) (i.e. chip-card), the conductors (111) (i.e. leads) extending along a path through the port (13) (i.e. slot) wherein:

an antenna (17,17') (i.e. laminae behave as true antennas) is placed at the opening defining the port (13) (i.e. slot), encompassing the path of any said conductors (111) (i.e. leads) ; and, radiation received at the antenna (17,17') (i.e. laminae, they behave as true antennas) is monitored to detect unauthorized use of the electronic security device (11) (i.e. chip-card) by providing a time varying current in the conductors and detecting a resulting signature at the antenna (17,17') (i.e. laminae, they behave as true antennas), and determining that the electronic security device (11) (i.e. chip-card) has a capacitance detected by a signature signal at the antenna (17,17') (i.e. laminae, they behave as true antennas) indicating presence of the conductors(111) (i.e. leads) (i.e. abstract, page 1 lines 14-25, page 3 line 13 to page 6 line 25; see Figures 1-2).

However, Mondardini did not explicitly disclose the antenna is a loop antenna of a port detector.

In the same field of endeavor of detecting an electromagnetic field coming in a disk slot, Sakiyama discloses coil (21) (i.e. detecting loops) loops around the opening (11) (i.e. a disk slot of a floppy disk drive) (page 2 lines 25-30 and page 4 lines 46-50; see Figures 1-5) in order to detect the electromagnetic field.

One of ordinary skill in the art understands that coil antenna of Sakiyama is desirable in the detecting port of Mondardini because Mondardini suggests laminae 17-

17' are arranged inside of slot 13 of the reader 10 for reading the contact signals, for which they behave as a true antenna (page 4 lines 6-20 and page 5 lines 8-11) and Sakiyama suggests a coil antenna loop around the opening (11) (i.e. detecting loops) for detecting the electromagnetic field something is inserted in the slot opening (11) (i.e. detecting loops) (page 2 lines 25-30 and page 4 lines 46-50). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include coil antenna of Sakiyama in the port detecting of Mondardini with the motivation for doing so would allow the coil antenna loop inside around the slot opening as an alternative of having laminae arrange inside of slot for detecting electromagnetic field.

Referring to claim 7, Mondardini in view of Sakiyama disclose a method set forth in claim 6, Mondardini discloses further comprising at least limiting transfer of information between the electronic security device (11) (i.e. chip-card) and the host device (10) (i.e. reader) upon detection of said unauthorized use (page 5 lines 8-26 and page 6 lines 15-25; see Figures 1-2).

Referring to claim 8, Mondardini in view of Sakiyama disclose a method set forth in claim 6, Mondardini discloses wherein the electronic security device is a smart card (i.e. chip-card is the same as a smart card accordingly) (page 1 lines 14-25; see Figures 1-2).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Au whose telephone number is (571) 272-3063. The examiner can normally be reached on Mon-Fri, 8:30AM – 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached at (571) 272-3068. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-3906.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-3900.

Scott Au



MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

